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BELL TELEPHONE LABORATORIES, INCORPORATED

3-.31

COMMON SYSTEMS
FOR USE WITH NO. 3 ESS
ARRANGED WITH 2-WIRE FEATURES
COMMON TAPE PAGING MONITOR
(CPAGM)

THE CONTENT OF THIS MATERIAL IS PROPRIETARY AND CONSTITUTES A TRADE SECRET. IT IS FURNISHED PURSUANT TO WRITTEN AGREEMENTS OR INSTRUCTIONS LIMITING THE EXTENT OF DISCLOSURE. ITS FURTHER DISCLOSURE IN ANY FORM WITHOUT THE WRITTEN PERMISSION OF ITS OWNER, WESTERN ELECTRIC COMPANY, INCORPORATED, IS PROHIBITED.

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SECTION DICTIONARY

NUMBER	NAME	MAXIMUM	ORIGIN	TYP	ADDRESS-MODIFICATION
01	CPAGM	0000407		C	
02	CPATCH	0000000		C	
03	CPATCH1	0000000		C	
04	CPATCH2	0000412		C	
05	CPATCH3	0000000		C	
06	CPATCH7	0000000		C	
07	TFAPCH2	0000000		C	
08	TPATCH	0000000		C	

```
                                    01        DBNAM   N033E313.OFF.DATABASE
                                    02        RELNAM  N03ESS
                                    03        GETLIB  LIBRARY,MEMBER=MOPTBL
                                    04        GETLIB  LIBRARY,MEMBER=SYSMAC
                                    05        GETLIB  LIBRARY,MEMBER=SYSSYM
                                    06        GETLIB  LIBRARY,MEMBER=PATCH2
0007355                             07        FIRSTOPTSS
0007355                             08        VERSION 3ACC,FIELD,ESS2E
0007355                             09       PATCHINIT
                                    10 N033E313.OFF.OPMS(0) DECK
                                    11        DSQUAL  N033E313
                                    12        LISTING N,CRUNCH=Y,SYSOUT=N
                                    13 ##################
                                    14 ##
                                    15 ## UNIX ID = N03PAG
                                    16 ##
                                    17 ##################
                                    18 ################################################
                                    19 ###
                                    20 ####  pid  date     time   rel
                                    21 ###
                                    22 #### cpagm 1/24/81 18:02:39 7.1.1.1
                                    23 ###
                                    24 ################################################
                                    25        NAME    CPAGM


                                    29 ## The following is a list of the valid csects for program CPAGM

0007355                             31 CPAGM  CSECT


                                    34 ## The following csects are necessary for patching

0111432                             36 CPATCH CSECT
0112562                             37 CPATCH1 CSECT
0114107                             38 CPATCH2 CSECT
0115073                             39 CPATCH3 CSECT
0121236                             40 CPATCH7 CSECT

0116774                             42 TFAPCH2 CSECT

0600000                             44 TPATCH CSECT
```

0:37:15 2/06/81 ****

CPAGM W77D

```
                    01        GETLIB  MEMBER=TAPSYM
                    02        GETLIB  MEMBER=TAPMAC
                    03        GETLIB  MEMBER=CPMAC
                    04        GETLIB  MEMBER=CCSYM
                    05        GETLIB  MEMBER=TTYMAC
                    06        GETLIB  MEMBER=TTYSYM
                    07        GETLIB  MEMBER=BSAIMAC
                    08        GETLIB  MEMBER=CTVTAB
0007355             09 CPAGM  CSECT
```

```
01      PUBLIC  EXPAGREQ
02      PUBLIC  MAPCHK
03      PUBLIC  OP
04      PUBLIC  PAGMON
05      PUBLIC  PAGEUN
```

```
01 BLMMA  EXTERN  MSFCLVL
02 BLMMA  EXTERN  TEMPINH_
03 CBLM   EXTERN  WAIT
04 CSYSUB EXTERN  CLR_WRDS
05 CSYSUB EXTERN  MOVST
06 CTAPM  EXTERN  BLKDATA
07 CTSD   EXTERN  PAGEMAP
08 CTSD   EXTERN  PLB
09 LAYOUT EXTERN  HGAREA
10 LAYOUT EXTERN  I_OBUF
11 MASACS EXTERN  MAXWDS
12 SEGDDO EXTERN  SEGTAB
```

```
                                    01 PCB     LAYOUT  4,FLTBLK        # PAGE MONITOR CONTROL BLOCK
                                    02 RTNH4   ITEM    4               #RETURN ADDR. HIGH BITS
                                    03 OP      ITEM    1
                                    04 WRDCNT  ITEM    11              #COUNT OF WORDS MOVED
                                    05 RTNL16  ITEM    16              #RETURN ADDR. LOW BITS
                                    06 ROSAVE  ITEM    16              #R0 SAVE AREA
                                    07 R1SAVE  ITEM    16              #R1 SAVE AREA
                                    08         LOEND
PCB                          -003- 09 #
00 |                          WRDCNT                                  | OP |          RTNH4
                  COUNT OF WORDS MOVED                                                RETURN ADDR. HIGH BITS
01 |                                RTNL16
                           RETURN ADDR. LOW BITS
02 |                                ROSAVE
                                 R0 SAVE AREA
03 |                                R1SAVE
                                 R1 SAVE AREA
   | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |

                                    27 HEADER  LAYOUT  2,FLTBLK        # HEADER ON NONRESIDENT PROGRAM TAPE BLOCKS
                                    28         ITEM    ADDR            # BASE ADDRESS OF RECORD
                                    29 RCRDLG  ITEM    12              # LENGTH OF RECORD
                                    30         LOEND
HEADER                       -003- 31 #
00 |                          RCRDLG                                  |          BASE ADDRESS OF RECORD
                  LENGTH OF RECORD
01 |
   | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |

                                    43 SEGTABENT LAYOUT 2,FLTBLK       # DATA IN SEGMENT TABLE ENTRY
                                    44         ITEM    4
                                    45         ITEM    4               # XOXOXOXOXOXOXOXOXOXOXOXOX
                                    46 RGTBRO  ITEM    8               # RIGHT BROTHER (SEGMENT NO.)
                                    47 LOGBLKAD ITEM   16              # LOGICAL BLOCK ADDRESS ON PAGEMON FILE
                                    48         LOEND
SEGTABENT                    -003- 49 #
00 |                          RGTBRO                                  | XOXOXOXOXOXOXOXOXOXOXOXOX |
                  RIGHT BROTHER (SEGMENT NO.)
01 |                                LOGBLKAD
                           LOGICAL BLOCK ADDRESS ON PAGEMON FILE
   | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
```

LAYOUTS


```
                                    01 ENTAB  LAYOUT  2,FLTBLK        # DATA IN ENTAB ENTRY
                                    02        ITEM    ADDR            # PAGING AREA ADDRESS
                                    03        ITEM    4               # XOXOXOXOXOXOXOXOXOXOXOXOXOXOX
                                    04 SEGNO  ITEM    8               # SEGMENT NO.
                                    05        LOEND
ENTAB                        -003- 06 #
00|-------------------------------------------------------------------------------------------------|
  |                  SEGNO                                |                                         |
01|              SEGMENT NO.                              | XOXOXOXOXOXOXOXOXOXOXOXOXOXOX  PAGING AREA ADDRESS |
  |-------------------------------------------------------------------------------------------------|
  | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
```

```
0007355                                 01 EXPAGREQ
                                        02 #      THIS ENTRY POINT INTO THE PAGING MONITOR IS PROVIDED FOR
                                        03 # EXPLICIT PAGE REQUESTS. ENTRY IS MADE VIA A NORMAL CALL AND
                                        04 # RA1 MUST POINT TO THE SEG FUNCTION ENTRY WHICH CONTAINS THE
                                        05 # SEGMENT NUMBER AND ADDRESS. A NORMAL RETURN IS EXECUTED. A SEG.
                                        06 # NUMBER 0 INDICATES THAT THE PROGRAM IS RESIDENT.


0007355                                 10        BEGIN
0007355 01 000000 171420 -------  -002- 11        HA
0007356 01 000001 031040 043076 CTSD    12        LAL     R2,PCB,RAO
0007360 01 000003 044002 ------         13        ST      R0,N(R0SAVE)(RAO)   # SAVE R0 AND R1
0007361 01 000004 044023 ------         14        ST      R1,N(R1SAVE)(RAO)
0007362 01 000005 040440 ------         15        L       R2,0(RA1)
0007363 01 000006 003442 177760         16        NI      R2,MSK(12,4)        # CHECK IF PROGRAM IS RESIDENT
0007365 01 000010 055002 ------ 0007367 17        BNC     PAGMUST
0007366                                 18        RETURN
0007366 01 000011 056420 ------  -001- 19        BTSAG

0007367                                 21 PAGMUST
0007367 01 000012 110454 ------         22        RLN     R2,8(SEGNO)-4       # KEEP OLD 8 BIT SEGMENT NO. FORMAT
0007370 01 000013 072060 ------         23        GN      R3,0
0007371 01 000014 072101 ------         24        GN      R4,1
0007372 01 000015 002060 000017         25        STM     R3,N(RTNH4)(RAO),M(RTNH4) # SAVE RETURN ADDRESS
0007374 01 000017 002101 177777         26        STM     R4,N(RTNL16)(RAO),M(RTNL16)
0007376 01 000021 053015 ------ 0007413 27        B       FINDPAGE            # USE NORMAL PAGING ROUTINES FROM HERE.
```

```
0007377                                  01 PAGMON
                                         02 #       NORMAL ENTRY POINT FOR PAGING OPERATIONS INITIATED BY 'CALL' OR
                                         03 # 'BL' INSTRUCTIONS. ENTRY IS MADE VIA THE CALL ENTRY IN THE ENTAB
                                         04 # TRANSFER VECTOR TABLE.


0007377                                      08        BEGIN
0007377 01 000022 171420 ------      -002- 09        HA
0007400 01 000023 031040 043076 CTSD         10        LAL     R2,PCB,RAD
0007402 01 000025 044002 ------              11        ST      R0,N(R0SAVE)(RAD)   # SAVE R0 AND R1 FOR CLIENT.
0007403 01 000026 044023 ------              12        ST      R1,N(R1SAVE)(RAD)
0007404 01 000027 072340 ------              13        GN      R14,0               # GET ADDRESS OF SEG. NUMBER AND
0007405 01 000030 072361 ------              14        GN      R15,1               # TARGET ADDRESS.
0007406 01 000031 040440 ------              15        L       R2,0(RA1)           # GET SEG. NUMBER AND 4 HIGH BITS OF TARGET
                                                                                   ADDRESS.
0007407 01 000032 040461 ------              17        L       R3,1(RA1)           # GET LOW 16 BITS OF TARGET ADDRESS.
0007410 01 000033 002040 000017              18        STM     R2,N(RTNH4)(RAD),M(RTNH4) # STORE TARGET ADDRESS AWAY
0007412 01 000035 044061 ------              19        ST      R3,N(RTNL16)(RAD)
0007413                                      20 FINDPAGE
0007413                                      21        TAKEOUT 1                   # 3E790279
0007413 01 000036 106000 ------      -001- 22        LR      0,0
0007414 01 000037 016542 177400              23        LRM     R6,R2,M(SEGNO)
0007416 01 000041 010550 ------              24        RRN     R6,5(SEGNO)         # POSITION R6 FOR MAP MODULE.
0007417 01 000042 004157 ------              25        SN      R6,1
                                             26 # END OF PAGMON ENTRY MODULE
```

```
0007420                                  01 MAPSET
                                         02 #      THIS ROUTINE WILL TAKE A PAGE NUMBER AND PREPARE THE PAGE
                                         03 # MAP FOR A FUTURE SEARCH TO CREATE THE BRANCH OF PAGES REQUIRED
                                         04 # FOR EXECUTION OF THE REQUESTED PAGE. A 16 WORD TABLE HOLDS THE
                                         05 # CURRENT STANDING OF THE PAGING BUFFER. EACH BIT REPRESENTS A
                                         06 # GIVEN PAGE.

                                         08 #    ENTRY R6 = SEGMENT NUMBER MINUS ONE
                                         09 #    EXIT UPDATED PAGING BUFFER MAP.

0007420 01 000043 131400 043056 CTSD       11        LAL     R0,PAGEMAP,RA1      # SET UP PAGE MAP BASE.
0007422 01 000045 016446 000360           12        LRM     R2,R6,MSK(4,4)      # SELECT WORD INFORMATION
0007424 01 000047 006206 -------          13        LR      R6,R6
0007425 01 000050 005202 -------          14        SR      R8,R2               # GET RID OF WORD INFORMATION
0007426 01 000051 010444 -------          15        RRN     R2,4                # DIVIDE BY 16. R2 NOW REPRESENTS INDEX INTO
                                                                                   PAGEMAP.
0007427 01 000052 003000 -------          17        ZR      R0                  # PREPARE FOR MASK GENERATION.
0007430 01 000053 043462 -------          18        LAX     R3,R2(RA1)          # OBTAIN WORD FROM MAP.
0007431 01 000054 024470 -------          19        TBR     R3,R8               # IS SEG ALREADY IN
0007432 01 000055 054205 ------- 0007637  20        BC      GETOPAGE            # DO NOT TOUCH MAP
                                         21 #      THE BITS BELOW THIS PAGE MUST ALL BE ZEROED. THE BITS ABOVE
                                         22 # THIS PAGE MUST BE LEFT UNCHANGED FOR A FUTURE SEARCH.
0007433                                  23 MASKGEN
0007433 01 000056 126410 -------          24        SBR     R0,R8               # GENERATE ANDING MASK IN R0
0007434 01 000057 036200 007433 0007433  25        BX      R8,MASKGEN
0007436 01 000061 014060 -------          26        NR      R3,R0               # R3 NOW CONTAINS CORRECT PAGEMAP WORD.
0007437 01 000062 044460 -------          27        ST      R3,0(RA1)
0007440 01 000063 003401 000017 CTSD      28        LI      R0,TBLSIZ(PAGEMAP)-1 # NUMBER OF WORDS IN PAGEMAP-1
0007442 01 000065 005002 -------          29        SR      R0,R2               # REMAINDER IN R0 INDICATES THE WORDS BELOW
                                                                                   THIS PAGE.
0007443 01 000066 041421 -------          31        LA      R1,1(RA1)           # SET UP RA1 FOR CLEARING ROUTINE
0007444                                   32        CALL    CLR_WRDS            # TABLE NOW READY.
0007444 01 000067 073031 -------    -001- 33        BSAI    clr_wRds            # SUBROUTINE CLR_WRDS IS IN PROGRAM CSYSUB
                                         34 # THIS ENDS MAPSET MODULE
```

```
  PAGING MONITOR                                                                                                0:37:15   2/06/81  ****

  LOAD PAGE ROUTINE                                                                                                        CPAGM          W77D

0007445                                                 01 SEGSEARCH
                                                        02 #       THIS MODULE BASED ON A TARGET SEGMENT NUMBER WILL SCAN THE
                                                        03 # SEGTAB TABLE AND LOAD THE REQUIRED PAGES NEEDED TO EXECUTE THE
                                                        04 # TARGET SEGMENT. THE PAGE MAP WILL BE UPDATED AS THE LOADING
                                                        05 # PROGRESSES.

                                                        07 #     ENTRY R6 = TARGET SEGMENT NUMBER
                                                        08 #     EXIT LOADED PAGING BUFFER.

0007445 01 000070 103060 -------                         10          ZR      R3
0007446 01 000071 031001 146672 SEG000                  11          LAL     R0,SEGTAB-2,RA0
0007450 01 000073 031400 043056 CTSD                    12          LAL     R0,PAGEMAP,RA1      # SET UP ADDRESS REGISTERS.
0007452                                                 13 SEGSRCH
0007452 01 000075 104542 -------                        14          AN      R6,2                # R6 = SEGMENT NO. PLUS ONE
0007453 01 000076 041102 -------                        15          LA      R4,2(RA0)           # OBTAIN SEGTAB ENTRY. (RIGHT BROTHER NUMBER)
0007454 01 000077 003502 177400                         16          NI      R4,M(RGTBRO)
0007456 01 000101 010510 -------                        17          RRN     R4,S(RGTBRO)
0007457 01 000102 006123 -------                        18          LR      R5,R3               # PREPARE TO EXTRACT MAP ENTRY.
0007460 01 000103 016605 000360                         19          LRM     R6,R5,MSK(4,4)      # EXTRACT WORD INDEX
0007462 01 000105 005130 -------                        20          SR      R5,R6               # R5 NOW CONTAINS BIT NUMBER OF PAGE IN WORD
                                                                                                  POINTED TO BY R6.
0007463 01 000106 010604 -------                        22          RRN     R6,4                # DIVIDE BY 16.
0007464 01 000107 042570 -------                        23          LX      R7,R6(RA1)          # GET MAP ENTRY.
0007465 01 000110 005106 -------                        24          SR      R4,R6               # TEST IF RB IS GREATER THAN TARGET PAGE.
0007466 01 000111 055116 ------- 0007604                25          BNC     NOLOAD              # TAKE BRANCH IF PAGE NOT TO BE LOADED.
0007467 01 000112 024565 -------                        26          TBR     R7,R5               #IS PAGE ALREADY IN
0007470 01 000113 054071 ------- 0007561                27          BC      CLOSECK
0007471 01 000114 026565 -------                        28          SBR     R7,R5
0007472 01 000115 030400 043076 CTSD                    29          LL      R0,PCB
0007474 01 000117 024004 -------                        30          TBN     R0,S(OP)
0007475 01 000120 054021 ------- 0007516                31          BC      REPOS               # NO NEED TO OPEN AGAIN
0007476 01 000121 026004 -------                        32          SBN     R0,S(OP)            # FLAG OPEN EXECUTION
0007477 01 000122 034400 043076 CTSD                    33          STL     R0,PCB
0007501                                                 34 REOPEN
0007501 01 000124 140021 -------                        35          L       R1,N(LOGBLKAD)(RA0) # GET INDEX READY
                                                        36 # NEXT THE TAPE HANDLER MUST BE USED TO BRING IN PAGE.
                                                        37          OPEN    PAGCLNT,(P,A,G,E,M,O,N),YES
0007502 01 000125 037020 126205 CTAPH      -002-  38     BSA     OPENTCB
0007504 01 000127 004123 -------          -001-  39     VFD     5,PAGCLNT 1,0 1,0 2,0 3,((7+1)/2)+1 1,0 3,((7+1)/2)-1
0007505 01 000130 050101 -------          -001-  40     VFD     8,ASC_P 8,ASC_A
0007506 01 000131 043705 -------          -001-  41     VFD     8,ASC_G 8,ASC_E
0007507 01 000132 046717 -------          -001-  42     VFD     8,ASC_M 8,ASC_O
0007510 01 000133 047000 -------          -001-  43     VFD     8,ASC_N 8,ASC_
0007511 01 000134 154005 ------- 0007516        44     BC      REPOS
                                                        45 # TAPE BUSY, STALL.
0007512                                                 46          CALL    WAIT
0007512 01 000135 073025 -------          -001-  47     BSAI    WXAIT               # SUBROUTINE WAIT IS IN PROGRAM CBLM
0007513                                                 48          TAKEOUT 2           # 3E790279
0007513 01 000136 106000 -------          -001-  49     LR      0,0

  COMMON TAPE PAGING MONITOR                                                                                                PR-1C955-50

    0:37:15   2/06/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CPAGM     ISSUE 05      PAGE   10
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 PAGING MONITOR                                                                                0:37:15   2/06/81  ****

 LOAD PAGE ROUTINE                                                                                      CPAGM          W77D

0007514 01 000137 006000 -------            -001- 01        LR      0,0
0007515 01 000140 053764 ------- 0007501          02        B       REOPEN
0007516                                           03 REPOS
0007516 01 000141 140021 -------                  04        L       R1,1(RA0)           # OBTAIN LOGICAL INDEX INTO FILE
                                                  05        POSITION PAGCLNT          # POSITION TAPE FOR READ.
0007517 01 000142 072047 -------            -002- 06        BSAI    RXEQR               # SUBROUTINE REQR IS IN PROGRAM CTAPH
0007520 01 000143 005100 -------            -001- 07        VFD     5,PAGCLNT 4,POSITION 1,1 1,0 5,0
0007521 01 000144 156000 -------                  08        BPAX    R0
0007522 01 000145 153006 ------- 0007530          09        B       READBEGIN           # EXECUTE READ MACRO. INITIATE DATA TRANSFER.
0007523 01 000146 153064 ------- 0007607          10        B       ABORTPAGE           # I/O ERROR ABORT PAGMON.
0007524                                           11        CALL    WAIT                # WAIT A SCAN. TAPE FUNCTIONS ARE SLOW.
0007524 01 000147 173025 -------            -001- 12        BSAI    WXAIT               # SUBROUTINE WAIT IS IN PROGRAM CBLM
0007525                                           13        TAKEOUT 2                   # 3E790279
0007525 01 000150 106000 -------            -001- 14        LR      0,0
0007526 01 000151 006000 -------            -001- 15        LR      0,0
0007527 01 000152 053767 ------- 0007516          16        B       REPOS



0007530                                           20 READBEGIN
0007530 01 000153 130400 043076 CTSD              21        LL      R0,PCB+N(WRDCNT)
0007532 01 000155 003402 000037                   22        NI      R0,-N(WRDCNT)       # ZERO WRDCNT (WORD COUNT)
0007534 01 000157 034400 043076 CTSD              23        STL     R0,PCB+N(WRDCNT)
0007536                                           24 READSTAT
                                                  25 # INITIATE READ OF PAGE.
                                                  26        READ    PAGCLNT,PAGEUN
0007536 01 000161 173047 -------            -002- 27        BSAI    RXEQR               # SUBROUTINE REQR IS IN PROGRAM CTAPH
0007537 01 000162 004200 007700 0007700     -001- 28        ADDR    PAGEUN,PAGCLNT+E(7)+READ+E(3)
0007541 01 000164 156000 -------                  29        BPAX    R0
0007542 01 000165 153006 ------- 0007550          30        B       PRECLOSECK          # CLOSE FILE
0007543 01 000166 153044 ------- 0007607          31        B       ABORTPAGE
0007544                                           32        CALL    WAIT
0007544 01 000167 173025 -------            -001- 33        BSAI    WXAIT               # SUBROUTINE WAIT IS IN PROGRAM CBLM
0007545                                           34        TAKEOUT 2                   # 3E790279
0007545 01 000170 106000 -------            -001- 35        LR      0,0
0007546 01 000171 006000 -------            -001- 36        LR      0,0
0007547 01 000172 053767 ------- 0007536          37        B       READSTAT            # MUST WAIT FOR POSITION.



0007550                                           41 PRECLOSECK
                                                  42        STATST  PAGCLNT
0007550 01 000173 173047 -------            -002- 43        BSAI    RXEQR               # SUBROUTINE REQR IS IN PROGRAM CTAPH
0007551 01 000174 006300 -------            -001- 44        VFD     5,PAGCLNT 4,STATST 1,1 1,0 5,0
0007552 01 000175 156000 -------                  45        BPAX    R0
0007553 01 000176 153006 ------- 0007561          46        B       CLOSECK
0007554 01 000177 153033 ------- 0007607          47        B       ABORTPAGE
0007555                                           48        CALL    WAIT
0007555 01 000200 173025 -------            -001- 49        BSAI    WXAIT               # SUBROUTINE WAIT IS IN PROGRAM CBLM

 COMMON TAPE PAGING MONITOR                                                                          PR-1C955-50

   0:37:15   2/06/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CPAGM     ISSUE 05      PAGE   11
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```
0007556                                          01        TAKEOUT 2                  # 3E790279
0007556 01 000201 106000 -------          -001- 02        LR      0,0
0007557 01 000202 006000 -------          -001- 03        LR      0,0
0007560 01 000203 053770 ------- 0007550        04        B       PRECLOSECK



                                                 08 # CONTINUE LOADING OF PAGES.
0007561                                          09 CLOSECK
0007561 01 000204 146570 -------                 10        STX     R7,R8(RA1)         #UPDATE MAP
0007562 01 000205 004156 -------                 11        SN      R6,2               # R6 = SEGMENT NO. MINUS ONE
0007563 01 000206 020066 -------                 12        CR      R3,R6              # CHECK IF ENTIRE TREE HAS BEEN LOADED.
0007564 01 000207 054003 ------- 0007567         13        BC      CLOSEFILE
0007565 01 000210 004461 -------                 14        AN      R3,1               # INCREMENT CURRENT PAGE COUNT.
0007566 01 000211 053664 ------- 0007452         15        B       SEGSRCH



0007567                                          19 CLOSEFILE
0007567 01 000212 130400 043076 CTSD             20        LL      R0,PCB
0007571 01 000214 024004 -------                 21        TBN     R0,S(OP)           # CHECK IF OPEN WAS REQUIRED
0007572 01 000215 055045 ------- 0007637         22        BNC     GETOPAGE           # NO CLOSE REQUIRED
                                                 23 # TERMINATE TAPE OPERATION
                                                 24        CLOSE   PAGCLNT
0007573 01 000216 073047 -------          -002- 25        BSAI    RXEQR              # SUBROUTINE REQR IS IN PROGRAM CTAPH
0007574 01 000217 005300 -------          -001- 26        VFD     5,PAGCLNT 4,CLOSE 1,1 1,0 5,0
0007575 01 000220 156000 -------                 27        BPAX    R0
0007576 01 000221 153036 ------- 0007634         28        B       GETOPAGE1          # TRANSFER TO APPROPRIATE PAGE ADDRESS.
0007577 01 000222 153007 ------- 0007606         29        B       ABORTPAGE1
0007600                                          30        CALL    WAIT
0007600 01 000223 173025 -------          -001- 31        BSAI    WXAIT              # SUBROUTINE WAIT IS IN PROGRAM CBLM
0007601                                          32        TAKEOUT 2                  # 3E790279
0007601 01 000224 106000 -------          -001- 33        LR      0,0
0007602 01 000225 006000 -------          -001- 34        LR      0,0
0007603 01 000226 053764 ------- 0007567         35        B       CLOSEFILE



0007604                                          39 NOLOAD
                                                 40 # A SPECIFIC PAGE NEED NOT BE LOADED. CLEAR MAP BIT AND
                                                 41 # CONTINUE RESOLVING PAGING BUFFER.
0007604 01 000227 122565 -------                 42        ZBR     R7,R5
0007605 01 000230 053754 ------- 0007561         43        B       CLOSECK
```

```
0007606                                    01 ABORTPAGE1
0007606 01 000231 104542 -------           02       AN      R6,2              #ADJUST SEG. NO. FOR PRINT OUT
0007607                                    03 ABORTPAGE
0007607 01 000232 104157 -------           04       SN      R6,1              # ADJUST SEG NO. FOR PO
0007610 01 000233 003000 -------           05       ZR      R0
0007611 01 000234 034400 043076 CTSD       06       STL     R0,PCB            # CLEAR FOR ABORT.
0007613                                    07       CALL    BLKDATA
0007613 01 000236 037020 127462 CTAPH  -001- 08     BSA     BLKDATA
0007615 01 000240 106160 -------           09       LR      R7,R0             # PRESENT LOGICAL TAPE POSITION
0007616                                    10       PRINT   PACTION=A,FMT=(WRD(P,A,G,E,M,O,N),WRD(A,B,T),DEC,DEC)


                                       -001- 12 #  MESSAGE PROTOTYPE
                                       -001- 13 #   A mm       PAGEMON ABT ddddd ddddd
0007616 01 000241 073053 -------       -002- 14       BSAI    PXMRY             # SUBROUTINE PMRY IS IN PROGRAM TTYAPP
0007617 01 000242 101200 -------       -002- 15       VFD     1,1 2,0 1,0 3,1 1,0 1,1 1,0 2,0 1,0 3,0
0007620 01 000243 021104 -------       -002- 16       VFD     4,TTYO_ 4,TTYO_ 4,TTYO_DEC 4,TTYO_DEC
0007621 01 000244 021042 -------       -002- 17       VFD     4,TTYO_ 4,TTYO_ 4,TTYO_ 4,TTYO_
0007622 01 000245 011210 ------- TTYTBL -002- 18       VFD     5,2 11,PXAGEMON
0007623 01 000246 000001 ------- TTYTBL -002- 19       VFD     5,-11,AXBT
                                       -001- 20       NOTE    THE VARIABLE PORTION OF THE OUTPUT MESSAGE TO BE PRINTED IS
                                                                CONTAINED IN GENERAL REGISTERS R6,R7,
                                          22 CPAGM  OW         0(247)            # 3E790279
                                       -001- 23       NOTE    ************** THE FIRST ADDRESS OVERWRITTEN IS 000247 **********


0007624                                    26       TAKEOUT 3                 # 3E790279
0007624 01 000247 106000 -------       -001- 27       LR      0,0
0007625 01 000250 006000 -------       -001- 28       LR      0,0
0007626 01 000251 006000 -------       -001- 29       LR      0,0
0007627 01 000252 003401 042660 LAYOUT     30       LI      R0,HGAREA+TBLSIZ(HGAREA)-MSFCLVL-ENTRYSIZ(HGAREA)
0007631                                    31       EOW                       # 3E790279
                                       -001- 32       NOTE    *************** THE LAST ADDRESS OVERWRITTEN IS 000253 **********


0007631                                    35       MIMODE  L HG,R0            # GET HG REGISTER TO MSFC CALLING LEVEL MINUS
                                                                                 ONE LEVEL
0007631 01 000254 013000 -------       -001- 37       MIS     0
0007632 01 000255 032523 -------       -002- 38             VFD     8,HGXT 8,R0XF
0007633                                    39       RETURN  3                 # SIGNAL END OF MSF
0007633 01 000256 056443 -------       -001- 40       BTSAGN  3
                                          41 # END OF LOAD MODULE
```


1-206-345 7017

```
0007634                                   01 GETOPAGE1
                                          02 CPAGM  OW      0(257)              # 3E790279
                                    -001- 03        NOTE    ************** THE FIRST ADDRESS OVERWRITTEN IS 000257 **********


0007634                                   06        CALL    TEMPINH_            # FORCE ONE BASE LOOP BEFORE TRANSFER TO
                                                                                  CLIENT AFTER TAPE CLOSE
0007634 01 000257 137020 147320 BLMMA -001- 08      BSA     TEMPINH_
0007636                                   09        CALL    WAIT
0007636 01 000261 173025 -------      -001- 10      BSAI    WAAIT               # SUBROUTINE WAIT IS IN PROGRAM CBLM
0007637                                   11        EOW                         # 3E790279
                                    -001- 12        NOTE    ***************** THE LAST ADDRESS OVERWRITTEN IS 000261 **********


0007637                                   15 GETOPAGE
                                          16 # ALL TAPE BLOCKS HAVE BEEN LOADED AND CONTROL WILL NOW
                                          17 # BE PASSED TO PAGING AREA FOR EXECUTION.
0007637                                   18        TAKEOUT 2                   # 3E790279
0007637 01 000262 106000 -------      -001- 19        LR      0,0
0007640 01 000263 006000 -------      -001- 20        LR      0,0
0007641 01 000264 031000 043076 CTSD      21        LAL     R0,PCB,RA0          # GET HIGH BITS OF ADDRESS.
0007643 01 000266 072020 -------          22        GN      R1,0
0007644 01 000267 016020 000017           23        IRM     R1,R0,M(RTNH4)
0007646 01 000271 072420 -------          24        HN      R1,0
0007647 01 000272 040021 -------          25        L       R1,N(RTNL16)(RA0)   # GET LOW 16 BITS
0007650 01 000273 072421 -------          26        HN      R1,1
0007651 01 000274 040002 -------          27        L       R0,N(R0SAVE)(RA0)
0007652 01 000275 040023 -------          28        L       R1,N(R1SAVE)(RA0)   #RESTORE R0 AND R1
0007653 01 000276 062100 -------          29        ZBS     N(OP)(RA0),S(OP)
0007654                                   30        RETURN                      # END OF PAGING OPERATION.
0007654 01 000277 056420 -------      -001- 31        BTSAG
0007655                                   32        TAKEOUT 19                  # 3E790279
0007655 01 000300 006000 -------      -001- 33        LR      0,0
0007656 01 000301 006000 -------      -001- 34        LR      0,0
0007657 01 000302 006000 -------      -001- 35        LR      0,0
0007660 01 000303 006000 -------      -001- 36        LR      0,0
0007661 01 000304 006000 -------      -001- 37        LR      0,0
0007662 01 000305 006000 -------      -001- 38        LR      0,0
0007663 01 000306 006000 -------      -001- 39        LR      0,0
0007664 01 000307 006000 -------      -001- 40        LR      0,0
0007665 01 000310 006000 -------      -001- 41        LR      0,0
0007666 01 000311 006000 -------      -001- 42        LR      0,0
0007667 01 000312 006000 -------      -001- 43        LR      0,0
0007670 01 000313 006000 -------      -001- 44        LR      0,0
0007671 01 000314 006000 -------      -001- 45        LR      0,0
0007672 01 000315 006000 -------      -001- 46        LR      0,0
0007673 01 000316 006000 -------      -001- 47        LR      0,0
0007674 01 000317 006000 -------      -001- 48        LR      0,0
0007675 01 000320 006000 -------      -001- 49        LR      0,0
```

PAGING MONITOR 0:37:15 2/06/81 ****

CLIENT RETURN MODULE CPAGM W77D

```
0007676 01 000321 006000 ------      -001- 01      LR     0,0
0007677 01 000322 006000 ------      -001- 02      LR     0,0
```

```
0007700                                  01 PAGEUN
                                         02 #       THE INTERRUPT HAS LOADED 1 BLOCK OF TAPE INTO THE
                                         03 # I/O BUFFER. THIS CODE WILL UNPACK THE DATA AND TRANSFER
                                         04 # THE DATA TO THE PAGING BUFFER. ASSUME THE BLOCK CONTAINS
                                         05 # CONTIGUOUS DATA AND PROGRAM



0007700                                  09        BEGIN   ()
0007700 01 000323 131000 045266 LAYOUT     10        LAL     R0,I_OBUF,RA0
0007702 01 000325 041341 -------         11        LA      R14,T(RA0)          # OBTAIN THE ADDRESS AND LENGTH SPECS.
0007703 01 000326 041361 -------         12        LA      R15,1(RA0)
0007704 01 000327 041001 -------         13        LA      R0,1(RA0)
0007705 01 000330 016456 177760          14        LRM     R2,R14,M(RCRDLG)
0007707 01 000332 010444 -------         15        RRN     R2,S(RCRDLG)        # R2 = TOTAL WORDS TO MOVE
0007710 01 000333 030500 043076 CTSD     16        LL      R4,PCB+N(WRDCNT)
0007712 01 000335 003502 177740          17        NI      R4,M(WRDCNT)
0007714 01 000337 010505 -------         18        RRN     R4,S(WRDCNT)        # WORD COUNT IN R4 (WORDS ALREADY MOVED)
0007715 01 000340 043404 -------         19        LAX     R0,R4(RA1)          # ADJUST RA1
0007716 01 000341 043004 -------         20        LAX     R0,R4(RA0)          # ADJUST RA0
0007717                                  21
0007717 01 000342 006062 -------         22        LR      R3,R2
0007720 01 000343 005064 -------         23        SR      R3,R4               # R3 = WORDS LEFT TO MOVE
0007721                                  24        IF      R3 >= A.MAXWDS+1 THEN LI R3,MAXWDS
0007721 01 000344 006003 -------  -003- 25                LR      R0,R3
0007722 01 000345 003400 154357 MASAC$   -003- 26                SI      R0,MAXWDS+1
0007724 01 000347 055003 ------- 0007727 -001- 27                BNC     IFS124
0007725 01 000350 003461 023420 MASAC$   -001- 28                LI      R3,MAXWDS           #
0007727                                  -001- 29 IFS124
0007727 01 000352 106003 -------         30        LR      R0,R3               # R0 = WORDS TO MOVE THIS TIME
0007730                                  31        CALL    MOVST               # TRANSFER TO PAGING BUFFER
0007730 01 000353 073033 -------  -001- 32        BSAI    MXOVST              # SUBROUTINE MOVST IS IN PROGRAM CSYSUB
0007731 01 000354 101503 -------         33        AR      R4,R3               # R4 = WORDS MOVED SO FAR
0007732 01 000355 031400 043076 CTSD     34        LAL     R0,PCB,RA1
0007734                                  35        IF      R4 = R2 THEN ZR R4
0007734 01 000357 020102 -------  -002- 36                CR      R4,R2
0007735 01 000360 055002 ------- 0007737 -001- 37                BNC     IFS128
0007736 01 000361 003100 -------  -001- 38                ZR      R4          #
0007737                                  -001- 39 IFS128
0007737 01 000362 110513 -------         40        RLN     R4,S(WRDCNT)
0007740 01 000363 002500 177740          41        STM     R4,N(WRDCNT)(RA1),M(WRDCNT) # SAVE WRDCNT
                                         42 CPAGM  OW      0(365)              # 12277
                                  -001- 43        NOTE    ************* THE FIRST ADDRESS OVERWRITTEN IS 000365 **********
```

PAGING MONITOR 0:37:15 2/06/81 ****

PAGE UNLOADING ROUTINE CPAGM W77D

```
0007742                                        01        IF      R4 = 0 THEN RETURN 1  ANOTHER TRANSFER REQUIRED
0007742 01 000365 014104 ------          -002- 02            TZ      R4
0007743 01 000366 054002 ------ 0007745  -001- 03            BC      IFS132
0007744 01 000367 056461 ------          -002- 04            BTSAN   1
0007745                                  -001- 05 IFS132
0007745                                        06        EOW                     # 12277
                                         -001- 07        NOTE    ********** THE LAST ADDRESS OVERWRITTEN IS 000367 **********


0007745                                        10        RETURN  0               # DONE
0007745 01 000370 156460 ------          -001- 11        BTSAN   0
```

```
PAGING MONITOR                                                                  0:37:15   2/06/81  ****

PAGE MAP LOOK UP ROUTINE                                                                CPAGM          W77D

0007746                                  01 MAPCHK
                                         02 #      THIS ROUTINE WILL CHECK TO SEE IF A GIVEN PAGE (RO) IS
                                         03 # ALREADY IN THE PAGING BUFFER OR NOT.
0007746                                  04
                                         05 # ENTRY CONDITION
0007746                                  06
                                         07 # RO IS SET TO PAGE NUMBER.
0007746                                  08
                                         09 # EXIT CONDITION
0007746                                  10
                                         11 # RETURN 1 PAGE IS RESIDENT AT THIS TIME.
0007746                                  12
                                         13 # RETURN O PAGE IS NOT RESIDENT AT THIS TIME.



0007746                                  17        BEGIN
0007746 01 000371 171420 -------  -002- 18        HA
                                         19 CPAGM  OW      0(372)              # 12416
                                 -001- 20        NOTE    ************** THE FIRST ADDRESS OVERWRITTEN IS 000372 **********


                                         23 CPATCH2 BGNP   0(400)              # 12416
0007747 01 000372 037000 114507 0114507  -001- 24        BL      XXX143
                                 -001- 25        NOTE    CPATCH2 'CSECT'
                                 -001- 26        NOTE    ****************** PATCH AREA BEGINS AT 000400 ******************


0114507                          -001- 29 XXX143 PATCHAREA
0114507 04 000400 130420 043076 CTSD     30        LL      R1,PCB+N(OP)
0114511 04 000402 024024 ------          31        TBN     R1,S(OP)
0114512                                  32        IF      CF = 1 THEN RETURN O
0114512 04 000403 055002 ------ 0114514  -001- 33            BNC     IFS145
0114513 04 000404 056440 ------          -002- 34            BTSAGN  0
0114514                          -001- 35 IFS145
0114514 04 000405 104017 ------          36        SN      RO,1
0114515 04 000406 031420 043056 CTSD     37        LAL     R1,PAGEMAP,RA1      # PAGE MAP ADDRESS
0114517                                  38        ENDP                        # 12416
0114517 04 00041O 037000 007751 0007751  -001- 39        BL      XXX147
                                 -001- 40        NOTE    ************* LAST PATCH ADDRESS USED IS 000411 ****************
                                 -001- 41        NOTE    ***** NUMBER OF PATCH WORDS USED IS 10 (DECIMAL) ********


0007751                          -001- 44 XXX147 OWCONTINUE
0007751                                  45        TAKEOUT 1
0007751 01 000374 106000 -------  -001- 46        LR      0,0
0007752                                  47        EOW                         # 12416
                                 -001- 48        NOTE    *************** THE LAST ADDRESS OVERWRITTEN IS 000374 **********


COMMON TAPE PAGING MONITOR                                                              PR-1C955-50

  0:37:15   2/06/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CPAGM     ISSUE 05      PAGE - 18
```

PAGE MAP LOOK UP ROUTINE CPAGM W77D

```
0007752 01 000375 016440 000360              01      LRM     R2,R0,MSK(4,4)    # SELECT WHICH WORD OF MAP IS TO BE INTERROGA
                                                                                 TED.
0007754 01 000377 006200 ------              03      LR      R8,R0
0007755 01 000400 005202 ------              04      SR      R8,R2             # REMOVE WORD DATA FROM PAGE NUMBER.
0007756 01 000401 010444 ------              05      RRN     R2,4              # R2 NOW REPRESENTS AN INDEX INTO MAP.
0007757 01 000402 043462 ------              06      LAX     R3,R2(RA1)        # GET WORD FROM MAP
0007760 01 000403 024470 ------              07      TBR     R3,R8             # IS THE PAGE IN MEMORY.
0007761 01 000404 003000 ------              08      ZR      R0
0007762 01 000405 030000 ------              09      ICF     R0,0              # GET RETURN CODE IN R0
0007763                                      10      RETURN
0007763 01 000406 056420 ------          -001- 11    BTSAG
```

```
01 OUT IOD ALM=2 PRI=3 CHL=MTC
02  PAGEMON ABT #AA BB
03 T"02"
04 THE PAGING MONITOR WAS ABORTED BY THE TAPE HANDLER.
05 T"03"
06 #A = $SEGMENT BEING PAGED AT POINT OF ABORT (DECIMAL).
07 $$bb = Present logical tape position (decimal).
08 T"04"
09 % IF TAPE ERROR MESSAGES PRECEDED THE PAGING MONITOR ABORT, THEY SHOULD
10   BE CONSULTED FIRST TO IDENTIFY THE PARTICULAR TAPE TROUBLE.  OTHERWISE,
11  RETRY THE PAGING FUNCTION. IF THE FAILURE PERSISTS, RUN TAPE DIAGNOSTICS.  %
12  SPACE 1
13 T"05"
14 $$PR=1C955-01  CPAGM  #$COMMON $PAGING $MONITOR $PROGRAM
15 .IODEND
16 CPAGM  MAXSIZE 0,407
```

PATCH HISTORY 0:37:15 2/06/81 ****

LISTING OF INDIVIDUAL PATCHES CPAGM W77D

```
        */*/*/*/012277/*/*/*/*  -002- 01       PBEGIN  PROG=CPAGM                                  TRNO=12277  SERNOB=63014
                                       02 # FIX BUG IN PAGING OPERATION WHICH DETECTS END OF BLOCK
                                       03 #THIS PATCH COORDINATES WITH TC 63036 AND REQUIRES TC  63047 TO WORK PROPERLY
0007763                                04       TCEND
                                -001- 05       NOTE    ************************************************************

        */*/*/*/012416/*/*/*/*  -002- 12       PBEGIN  PROG=CPAGM                                  TRNO=12416  SERNOB=62124
                                       13 # CHANGE SUBROUTINE MAPCHK TO CHECK FOR PAGING IN PROGRESS IN
                                       14 #ADDITION TO SEARCHING FOR THE PRESENCE OF A GIVEN SEGMENT.
                                       15 # PREVENTS A PREMATURE INDICATION OF LOADED NONRESIDENT CODE
                                       16 #FOR THE TTY HANDLER AND OTHER CLIENTS.
0007763                                17
                                       18 # COORDINATES WITH TC 65010 TR 12377
0007763                                19       TCEND
                                -001- 20       NOTE    ************************************************************

0007763                                27       END
```

PATCH HISTORY 0:37:15 2/06/81 ****

```
  VALUE  T  NAME       DEF/REF    ATTRIBUTES AND REFERENCES                    CPAGM          W77D

  142154 S .STOP
 0114507 L XXX143      18-29  18-24
 0007751 L XXX147      18-44  18-39
 0000201 A XBITCNT            1-08
 0000001 A XBOP               1-08
 0000003 A XCLAS              LIBNUM=12      1-08
 0000002 A XMAXWRD            LIBNUM=12      1-08
'CPAGM'  T XNAME%
       0 J XOW%       1-10
       0 J XPFT%
'ALL'    T XSAVREGS
 0000010 A XTA1%      13-23  14-03, 16-43, 18-20
       0 J XTCHEAD%   1-10
'PRLINE 1,1,
'
                                                                                  T'T XUS%
''                    T XUSING12
''                    T XUSING14
 0000002 A XWRDCNT            LIBNUM=12      1-08
CTVTAB   V clr_wRds           LIBNUM=14      9-33
      14 P clr_wRds%_%C
           SYSUB              LIBNUM=14
TTYTBL   X AXBT       13-19  13-19
 0000001 A AAX                LIBNUM=12      1-08
 0007607 L ABORTPAGE  13-03  11-10, 11-31, 11-47
 0007606 L ABORTPAGE1 13-01  12-29
 0000000 A ASC_               LIBNUM=5       10-43
 0000101 A ASC_A              LIBNUM=5       10-40
 0000305 A ASC_E              LIBNUM=5       10-41
 0000107 A ASC_G              LIBNUM=5       10-41
 0000115 A ASC_M              LIBNUM=5       10-42
 0000116 A ASC_N              LIBNUM=5       10-43
 0000317 A ASC_O              LIBNUM=5       10-42
 0000120 A ASC_P              LIBNUM=5       10-40
       0 U BBX                1-08
CTAPH    V BLKDATA    4-06  13-08
 0000011 A CARCNT     10-40  10-41, 10-42, 10-43, 10-44
 0000005 A CLOSE              LIBNUM=5       12-26
 0007561 L CLOSECK    12-09  10-27, 11-46, 12-43
 0007567 L CLOSEFILE  12-19  12-13, 12-35
```

PATCH HISTORY 0:37:15 2/06/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CPAGM W77D
CSYSUB	V	CLR_WRDS	4-D4		

```
   ¢.<<(+!&
        !$*)¢
~~/          '
,X_>?
   :#@'=" ab
cdefghi nS{+
+ jklmnopqr^
 m?z#~-stuvw
xyz+'{E>*o12
3456789¢¬}?¢
~Cabcdefghi
     }jklmno
pqr     \ s
tuvwxyz
 0123456789
       '
'n
```

T CONLC LIBNUM=14

```
     z
   ¢<hp!x
      v$fgs
~el       '
!X_>k
  jo#b'd" ab
cdefghi nS{+
+ jklmnopqr^
 m?z#~-stuvw
xyz+'{E>*o12
3456789¢¬}?¢
~CABCDEFGHI
     }JKLMNO
PQR     \ S
TUVWXYZ
 0123456789
       '
```

T CONSC LIBNUM=14

0007355	L	CPAGM	1-31	
0111432	L	CPATCH	1-36	
0112562	L	CPATCH1	1-37	
0114107	L	CPATCH2	1-38	18-24

```
   PATCH HISTORY                                                                0:37:15   2/06/81  ****

      VALUE  T  NAME        DEF/REF    ATTRIBUTES AND REFERENCES                          CPAGM          W77D

     0115073 L  CPATCH3       1-39
     0121236 L  CPATCH7       1-40
           0 U  CTAPH




   ¢.<(+!&
       !$*)¦
~/          !
,x_>?
   :#@'="
        n¢(+
+           "
  ¤)±¤-¬
   ÷└┌[±¤012
3456789+/-,]¤
-(ABCDEFGHI
      JJKLMNO
PQR       \ S
TUVWXYZ
 0123456789
          T  DELLC              LIBNUM=14
          0  U  EOS
          0  J  ESS2           1-10
          1  J  ESS2E          1-09
     0007355 L  EXPAGREQ       7-01   3-01
          1  J  FIELD          1-09
     0007413 L  FINDPAGE       8-20   7-27
     0007637 L  GETOPAGE      14-15   9-20, 12-22
     0007634 L  GETOPAGE1     14-01   12-28
     0000065 A  HGXT                  LIBNUM=10      13-38
     LAYOUT  V  HGAREA         4-09   13-30, 13-30, 13-30
     LAYOUT  V  I_OBUF         4-10   16-10
'ILLEGAL CON
DITIONAL IN
THE IF MACRO'T IFERROR1
'DATA > 0 OR
 DATA < 0 IS
 MEANINGLESS
, USE DATA ¬
= 0'          T IFERROR2
'TWO CONSTAN
TS ARE BEING
 COMPARED IN
 IF MACRO'    T IFERROR3
'AN ITEM WAS

    COMMON TAPE PAGING MONITOR                                                                PR-1C955-50

      0:37:15   2/06/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CPAGM     ISSUE 05      PAGE    24
```

```
     VALUE  T  NAME        DEF/REF    ATTRIBUTES AND REFERENCES                    CPAGM          W77D

 COMPARED TO
  SOMETHING O
THER THAN A
CONSTANT'     T IFERROR4
 'DESTINATION
  OF AN = STA
TEMENT IS A
CONSTANT'     T IFERROR5
 'ATTEMPTING
TO SET ITEM
= TO SOMETHI
NG OTHER THA
N A CONSTANT'T IFERROR6
 'ITEM MAY ON
LY USE THE =
  AND ~= COND
ITIONALS'     T IFERROR7
      0007727 L IFS124        16-29  16-27
      0007737 L IFS128        16-39  16-37
      0007745 L IFS132        17-05  17-03
      0114514 L IFS145        18-35  18-33
      0000001 A LOGBLKAD       5-48 W=20  S=0  N=1  CL=3        10-35
'SEGTABENT'   T LONAM_LOGBLK
                AD
'PCB'         T LONAM_OP
'HEADER'      T LONAM_RCRDLG
'SEGTABENT'   T LONAM_RGTBRO
'PCB'         T LONAM_RTNH4
'PCB'         T LONAM_RTNL16
'PCB'         T LONAM_R0SAVE
'PCB'         T LONAM_R1SAVE
'ENTAB'       T LONAM_SEGNO
'PCB'         T LONAM_WRDCNT
     CTVTAB   V MXOVST             LIBNUM=14      16-32
          14  P MXOVSTX_XCSY
                SUB               LIBNUM=14
      0007746 L MAPCHK        18-01   3-02
      0007420 L MAPSET         9-01
      0007433 L MASKGEN        9-23   9-25
     MASACS   V MAXWDS         4-11  16-26, 16-28
```

```
    PATCH HISTORY                                                                                    0:37:15   2/06/81  ****

      VALUE   T  NAME       DEF/REF    ATTRIBUTES AND REFERENCES                                        CPAGM          W77D

,%_-?
   -#@'="' ab
cdefghi n¢<+
+ jklmnopqr~
  m?s#--stuvw
xyz÷¹┌┌Σ¤012
3456789↑J┐∫≠
-{ABCDEFGHI
     }JKLMNO
PQR      \ S
TUVWXYZ
 0123456789
      '          T MICODETR             LIBNUM=10
     CSYSUB      V MOVST          4-05
'3E790279'       T MRNO
     BLMHA       V MSFCLVL        4-01  13-30
      0007604 L  NOLOAD           12-39  10-25
      0000000 A  OP                5-04 W=1  S=4  N=0  CL=3    3-03, 10-30, 10-32, 12-21, 14-29, 18-30, 18-31
     CTAPH       V OPENTCB        10-38  10-38




   (.<(AON
       X$*);
¬S/          :
,%_>?
   -#@'L" ab
cdefghi n¢<+
+ jklmnopqr~
  m?s#--stuvw
xyz÷¹┌┌Σ¤012
3456789↑J┐∫≠
-{IBCLEFGHI
     }JKLMNO
PQR      \ S
LLLWLYZ
 0123456789
      '          T OPTR
      0000150 A  ORG_000247     13-23
      0000160 A  ORG_000257     14-03
      0000202 A  ORG_000365     16-43
      0000215 A  ORG_000372     18-20
      0000217 A  ORG_000400     18-30
        0 U P
     TTYTBL      X PXAGEMON     13-18  13-18
     CTYTAB      V PXMRY              LIBNUM=14      13-14

    COMMON TAPE PAGING MONITOR                                                                                  PR-1C955-50

      0:37:15   2/06/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CPAGM     ISSUE 05      PAGE    26
```

PATCH HISTORY 0:37:15 2/06/81 ****

```
  VALUE  T  NAME          DEF/REF    ATTRIBUTES AND REFERENCES                                                    CPAGM          W77D

      14 P PXMRYX_XTTYA
           PP                        LIBNUM=14
 0000001 A PAGCLNT                   LIBNUM=5        10-39, 11-07, 11-28, 11-44, 12-26
CTSD     V PAGEMAP        4-07       9-11,  9-28, 10-12, 18-37
 0007700 L PAGEUN         16-01      3-05, 11-28
 0007377 L PAGMON          8-01      3-04
 0007367 L PAGMUST         7-21      7-17
CTSD     V PCB            4-08       7-12,  8-10, 10-29, 10-33, 11-21, 11-23, 12-20, 13-06, 14-21, 16-16, 16-34, 18-30
TTYAPP   V PMRY           13-14
 0000004 A POSITION                  LIBNUM=5        11-07
 0007550 L PRECLOSECK     11-41      11-30, 12-04
CTVTAB   V RXEQR                     LIBNUM=14       11-06, 11-27, 11-43, 12-25
      14 P RXEQRX_XCTAP
           H                         LIBNUM=14
      14 P RAD                       LIBNUM=3         7-12,  7-13,  7-14,  7-25,  7-26,  8-10,  8-11,  8-12,  8-18,  8-19, 10-11,
                                      10-15, 10-35, 11-04, 14-21, 14-25, 14-27, 14-28, 14-29, 16-10, 16-11, 16-12, 16-13, 16-20
      16 P RA1                       LIBNUM=3         7-15,  8-15,  8-17,  9-11,  9-18,  9-27,  9-31, 10-12, 10-23, 12-10, 16-19,
                                      16-34, 16-41, 18-37, 19-06
 0000000 A RCRDLG          5-30 W=14  S=4  N=0  CL=3                16-14, 16-15
 0000001 A READ                      LIBNUM=5        11-28
 0007530 L READBEGIN      11-20      11-09
 0007536 L READSTAT       11-24      11-37
 0007501 L REOPEN         10-34      11-02
 0007516 L REPOS          11-03      10-31, 10-44, 11-16
CTAPH    V REQR           11-06
 0000000 A RGTBRO          5-47 W=10  S=10  N=0  CL=3         10-16, 10-17
' LOGICAL BL
OCK ADDRESS
ON PAGEMON F
ILE'          T RMK_LOGBLKAD
''            T RMK_OP
' LENGTH OF
RECORD'       T RMK_RCRDLG
' RIGHT BROT
HER (SEGMENT
 NO.)'        T RMK_RGTBRO
'RETURN ADDR
. HIGH BITS'  T RMK_RTNH4
'RETURN ADDR
. LOW BITS'   T RMK_RTNL16
'RD SAVE ARE
A'            T RMK_RDSAVE
'R1 SAVE ARE
A'            T RMK_R1SAVE
' SEGMENT NO
.'            T RMK_SEGNO
'COUNT OF WO
RDS MOVED'    T RMK_WRDCNT
 0000000 A RTNH4           5-03 W=4  S=0  N=0  CL=3    7-25,  8-18, 14-23
```

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PATCH HISTORY                                                                                                    0:37:15   2/06/81  ****

  VALUE  T  NAME          DEF/REF    ATTRIBUTES AND REFERENCES                                                          CPAGM          W77D

 0000001 A RTNL16         5-06 W=20  S=0  N=1  CL=3          7-26,  8-19, 14-25
       0 R R0                      LIBNUM=3       7-13,  8-11,  9-11,  9-17,  9-24,  9-26,  9-28,  9-29, 10-11, 10-12, 10-29,
                                    10-30, 10-32, 10-33, 11-08, 11-21, 11-22, 11-23, 11-29, 11-45, 12-20, 12-21, 12-27, 13-05,
                                    13-06, 13-09, 13-30, 14-21, 14-23, 14-27, 16-10, 16-13, 16-19, 16-20, 16-25, 16-26, 16-30,
                                    16-34, 18-36, 19-01, 19-03, 19-08, 19-09
 0000123 A ROXF                     LIBNUM=10      13-38
 0000002 A ROSAVE         5-07 W=20  S=0  N=2  CL=3          7-13,  8-11, 14-27
       1 R R1                       LIBNUM=3       7-14,  8-12,  9-31, 10-35, 11-04, 14-22, 14-23, 14-24, 14-25, 14-26, 14-28,
                                    18-30, 18-31, 18-37
 0000003 A R1SAVE         5-08 W=20  S=0  N=5  CL=3          7-14,  8-12, 14-28
      16 R R14                      LIBNUM=3       8-13, 16-11, 16-14
      17 R R15                      LIBNUM=3       8-14, 16-12
       2 R R2                       LIBNUM=3       7-12,  7-15,  7-16,  7-22,  8-10,  8-15,  8-18,  8-23,  9-12,  9-14,  9-15,
                                    9-18,  9-29, 16-14, 16-15, 16-22, 16-36, 19-01, 19-04, 19-05, 19-06
       3 R R3                       LIBNUM=3       7-23,  7-25,  8-17,  8-19,  9-18,  9-19,  9-26,  9-27, 10-10, 10-18, 12-12,
                                    12-14, 16-22, 16-23, 16-25, 16-28, 16-30, 16-33, 19-06, 19-07
       4 R R4                       LIBNUM=3       7-24,  7-26, 10-15, 10-16, 10-17, 10-24, 16-16, 16-17, 16-18, 16-19, 16-20,
                                    16-23, 16-33, 16-36, 16-38, 16-40, 16-41, 17-02
       5 R R5                       LIBNUM=3      10-18, 10-19, 10-20, 10-26, 10-28, 12-42
       6 R R6                       LIBNUM=3       8-23,  8-24,  8-25,  9-12,  9-13, 10-14, 10-24, 12-11, 12-12, 13-02, 13-04
       7 R R7                       LIBNUM=3      10-23, 10-26, 10-28, 12-10, 12-42, 13-09
      10 R R8                       LIBNUM=3       9-13,  9-14,  9-19,  9-24,  9-25, 10-19, 10-20, 10-22, 10-23, 12-10, 19-03,
                                    19-04, 19-07
 0000000 A SEGNO          6-05 W=10  S=10 N=0  CL=3          7-22,  8-23,  8-24
 0007445 L SEGSEARCH     10-01
 0007452 L SEGSRCH       10-13  12-15
SEGDO    V SEGTAB         4-12  10-11
 0000236 A SERNO_062124  21-13
 0000232 A SERNO_063014  21-02
'AXBT'   I SPWORD
 0000011 A STATST                LIBNUM=5       11-44
 0000000 A SV_REG
BLMMA    Y TEMPINH_       4-02  14-08
 0116774 L TFAPCH2        1-42
 0600000 L TPATCH         1-44
 0000232 A TR_012277     21-02
 0000236 A TR_012416     21-13
 0000202 A TR_12277      16-43
 0000217 A TR_12416      18-20  18-30
 0000160 A TR_3E790279   13-23  14-03
 0007747 L TRORG         13-23  14-03, 16-43, 18-20
       0 U TTYAPP
 0000002 A TTYO_                 LIBNUM=12      13-16, 13-17
 0000004 A TTYO_DEC              LIBNUM=12      13-16
 0000002 A TTYOCNT       13-18
       0 U TTYTBL
CTVTAB   V WAIT                 LIBNUM=14      10-47, 11-12, 11-33, 11-49, 12-31, 14-10
      14 P WAITX_XCBLM          LIBNUM=14
CBLM     V WAIT          4-03


COMMON TAPE PAGING MONITOR                                                                                                    PR-1C955-50

  0:37:15   2/06/81  TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET   CPAGM     ISSUE 05      PAGE   28
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PATCH HISTORY 0:37:15 2/06/81 ****

VALUE T NAME DEF/REF ATTRIBUTES AND REFERENCES CPAGM W77D

0000000 A WRDCNT 5-05 W=13 S=5 N=0 CL=3 11-21, 11-22, 11-23, 16-16, 16-17, 16-18, 16-40, 16-41
1 J 3ACC 1-09

NO FLAG(S) FOUND IN THIS ASSEMBLY